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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/987,824	11/16/2001	Sehat Sutardja	MP0126	7655

23624 7590 07/06/2004

MARVELL SEMICONDUCTOR, INC.  
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EXAMINER
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RAY, GOPAL C

ART UNIT	PAPER NUMBER
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2111

DATE MAILED: 07/06/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/987,824

Applicant(s)

SUTARDJA, SEHAT

Examiner

Gopal C. Ray

Art Unit

2111

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

### A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 November 2001.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☒ Claim(s) 28-35 is/are allowed.  
6) ☒ Claim(s) 1, 2, 6, 8, 9, 11-13, 15, 20 and 22-27 is/are rejected.  
7) ☒ Claim(s) 3-5, 7, 10, 14, 16-19 and 21 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 16 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

1. Claims 1-35 are presented for examination.
2. The drawings filed on 11/16/2001 are approved by the USPTO draftsman.  
Direct any inquiries concerning drawing review by the USPTO draftsman to the Drawing Review Branch at (703) 305-8404.
3. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.
4. Claims 16-19 and 21 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Claims 16-19, line 1 of each claim recites "The integrated circuit" whereas parent claim 15 is a method claim. Claim 21 depends on claim 19. However, they are identical claims. Applicant is required to cancel the claims, or amend the claims to place the claims in proper dependent form, or rewrite the claim in independent form.
5. Claims 11, 12, 16, 17 and 22-27 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The examiner notes the following ambiguities. However, all claims should be revised carefully to eliminate all grammatical errors and antecedent basis problems.

As per claim 11, lines 1-2, the phrase "the means for network controlling" lacks proper antecedent basis because "means for network interfacing" (claim 8, line 9) has been claimed earlier.

As per dependent claim 12, the claim incorporates the deficiencies of claim 11.

As per claim 16, lines 1-2, the phrase "the serial mass data storage host adapter" lacks proper antecedent basis because "a serial ATA host adapter" (claim 15, line 6) has been claimed earlier; lines 2-3, the phrase "the high speed mass data storage unit"

lacks proper antecedent basis because "a data storage unit" (claim 15, lines 1-2) has been claimed earlier;

As per claim 17, the limitation, "wherein the network controller includes an Ethernet controller" has already been claimed in parent claim 15, line 9.

As per claims 22-23, lines 1-2 of each claim, the phrase "the high speed Ethernet controller" should be changed to --the high speed Ethernet network controller-- for proper antecedent basis.

As per claim 24, lines 7, 8, 11 and 12, the phrase "the high speed bus interface" lacks proper antecedent basis because "means for bus interfacing" (line 4) or "bus interfacing means" has been claimed earlier.

As per dependent claims 25-27, the claims incorporate the deficiencies of claim 24.

6. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 6, 8 and 13 are rejected under 35 U.S.C. § 103(a) as being unpatentable over US Patent 5,970,069 issued to Kumar et al. in view of US patent 5,809,337 issued to Hannah et al.

As per claim 1, the reference of Kumar et al. teaches "a high speed bus interface to interface to a core chipset through a high speed bus" in Figures 2a-b and col. 1, lines 59-67; "a network controller in communication with the high speed bus interface to control a network port" in Fig. 2a, element 54.

The reference of Kumar et al. fails to expressly teach the limitation of "a serial mass data storage host adapter in communication with the high speed interface to control a high speed mass data storage unit". However, the above feature was well known to one of ordinary skill in the art at the time the invention was made as evidenced by Hannah et al. The reference of Hannah et al. teaches the feature in col. 2, lines 27-29. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the above feature of Hannah et al. in the system of Kumar et al. because that would improve the quality and flexibility of processing which may be performed on digital signals being read from or written to storage medium. The reference of Hannah et al. teaches the motivation in col. 4, lines 28-31.

As per claim 6, the claim is rejected for the same reasons as discussed in the rejection of claim 1 with the exception of the added limitation, "the integrated circuit is a CMOS semiconductor". However, the reference of Kumar et al teaches the above feature in col. 5, line 21. Furthermore, it would have been obvious choice of design to include the above feature in a system such as applicant's because that would save power, CMOS semiconductor uses far less electricity than other types.

As per claim 8, the claim is written in "means plus function" format. However, the rejection of claim 1 is also applicable.

As per claim13, the added limitation of the claim is rejected for the same reasons as discussed in the rejection of claim 6 above.

8. Claims 2, 9, 15 and 20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over US Patent 5,970,069 issued to Kumar et al. in view of US patent 5,809,337 issued to Hannah et al. as applied to claim 1 above, and further in view of common knowledge in the art.

As per claim 2, the claim is rejected for the same reasons as discussed in the rejection of claim 1 with the exception of the added limitation, "serial ATA host adapter". However, the above feature was well known to one of ordinary skill in the art at the time the invention was made as evidenced by applicant's admitted prior art on page 1, paragraph 2, lines 6-9. Absent a showing new or unobvious results, it would have been obvious choice of design to one of ordinary skill in the art at the time the invention was made to include the above feature in the system of Kumar et al. because these are alternatively replaceable elements that can be utilized to accomplish particular objective in order to fulfill system requirement.

As per claim 9, the added limitation of the claim is rejected for the same reasons as discussed in the rejection of claim 2 above.

As per claim 15, the claim recites a method which parallels the combination of claims 1 and 2 above. Therefore, the rejection of Claims 1 and 2 is applicable.

As per claim 20, the claim is rejected for similar reasons as discussed in the rejection of claims 1 and 2 with the exception of "a high speed Ethernet network controller in communication with the high speed bus interface to control the network port". However, the reference of Kumar et al teaches the above feature in Fig. 2b, element 36 and col. 4, lines 50-52.

9. Claims 28-35 are allowable over the prior art on record. Claims 11, 12 and 22-27 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action. Claims 3-5, 7, 10 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The following is an Examiner's Statement of Reasons for Allowance:

Each allowable claim recites an additional feature such as "wherein the serial mass storage host adapter controls the high speed mass data storage unit in response to a signal from the core chipset" in claim 3, etc. in combination with other claimed elements. The examiner has done a thorough search and found no prior art that teaches or fairly suggests overall claimed combination.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicant is urged to consider the references. However, the references should be evaluated by what they suggest to one versed in the art, rather than by their specific disclosure. The prior art submitted by applicant has been considered by the examiner and made of record in the file.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gopal C. Ray whose telephone number is (703) 305-9647. The examiner can normally be reached on Monday - Friday from 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart, can be reached on (703) 305-4815. The new fax phone number for this Group is (703) 872-9306.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [mark.rinehart@uspto.gov].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35

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U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to TC2100 receptionist whose telephone number is (703) 305-3900.

*Gopal C. Ray*  
**GOPAL C. RAY  
PRIMARY EXAMINER  
GROUP 2300**